

1. A digital data storage system comprising:

at least one storage element, the storage element comprising a plurality of storage locations each configured to retrievably store a record, the at least one storage element

5 being configured to retrievably store a series of records;

a memory configured to store, associated with each storage location, a descriptor, the descriptor having a check value for the record stored in the respective storage location associated with the device, said memory being configured to store, associated with the descriptor associated with said at least one of said storage elements, a descriptor having a

10 series of check values each associated with a respective one of said plurality of records, a control device configured to

i. initiate retrieval of one of said records in response to receipt of a retrieval request requesting retrieval of one of said records from one of said storage locations, and,

15 ii. after said one of said records has been retrieved in response to the request, use the check value from the descriptor associated with the storage location identified in the retrieval request to verify that the one of said records is from the one of said storage locations identified in the retrieval request, and

a cache memory comprising a plurality of cache slots, the control device
20 being configured to, after retrieving said one of said records, selectively store the record in one of the cache slots and store a pointer thereto in said descriptor, based on the determination that the one of said records is the respective one of the series of records stored in the one of said storage locations identified in the retrieval request, selectively store the one of said records in a selected one of said
25 cache slots, the control device being configured to select the one of said cache slots so that a plurality of any other records from the same storage element are stored in the same said one of said cache slots are from the same storage element as the record.

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